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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/725,679	11/24/2003	Dmitri Valerjewich Kapoustine	P66870US0	9968

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EXAMINER	
MENON, KRISHNAN S	
ART UNIT	**PAPER NUMBER**
1723	

DATE MAILED: 06/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/725,679	KAPOUSTINE ET AL.	
	Examiner	Art Unit	
	Krishnan S. Menon	1723	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 November 2003* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *12-31* is/are pending in the application.

4a) Of the above claim(s) *12-27,30 and 31* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *28 and 29* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☒ Certified copies of the priority documents have been received in Application No. *09/868,915* .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claims 12-31 are pending, of which 12-27 and 30-31 are withdrawn from consideration as the non-elected invention on 6/12/06.

Election/Restrictions

Claims 12-27 and 30-31 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 6/12/06.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1. Claims 28 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kosaka et al (US 4,045,353) in view of EP 0 648 777 A1.

Kosaka (353) teaches a chromatographic composite material as used in the instant claims with a support coated with a cross-linked polymer having fluorine moieties (col 2 lines 40-64). The recitation of the steps for the process of making the composite is not patentable, since the claim is for a process of using the chromatographic

composite. Method of use depend on the product, not the process of making the product, unless the applicant can show that the process of making imparts a unique and unobvious structure to the product. "[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." In re *Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985).

Claims 28 and 29 are for the process of separating, isolating or purifying (respectively) DNA, RNA, etc by chromatography using the material taught by Kosaka as above. However, Kosaka does not teach chromatographic separation of biomolecules like DNA, etc. EP-777 teaches chromatographic separation of DNA etc using like silica with surface modified to have fluorine moieties (see abstract). It would be obvious to one of ordinary skill in the art at the time of invention to use the teaching of EP-777 in the teaching of Kosaka to separate DNA etc., because fluorinated surfaces are taught as being particularly useful for separation, isolation and purification of DNA from other cellular components by EP-777 (see lines 45-50, page 2), and the process is carried out in one step (see example 2 of EP).

The process of chromatographic separation of DNA and RNA from proteins and other substances also would be inherent in the teaching of Kosaka. Under the principles of inherency, if a prior art device, in its normal and usual operation, would

necessarily perform the method claimed, then the method claimed will be considered to be anticipated by the prior art device. When the prior art device is the same as a device described in the specification for carrying out the claimed method, it can be assumed the device will inherently perform the claimed process. In re King, 801 F.2d 1324, 231 USPQ 136 (Fed. Cir. 1986)

2. Claims 28 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kosaka et al (US 4,045,353) in view of EP 0 648 777 A1 and Carstens (US 5,744,257).

Kosaka (353) in view of EP-777 teaches fluorinated monomers like tetrafluoroethylene and vinyl fluoride (Kosaka col 2 lines 4-64) for polymerizing on the support for use in chromatographic separation, isolation and/or purification of biomolecules and the chromatographic separation process, but does not teach fluorination of the polymer. Carstens (257) teaches fluorination using fluorine in nitrogen or XeF2 (col 3 lines 28-48). It would be obvious to one of ordinary skill in the art at the time of invention to use the teachings of Carstens (257) to fluorinate the surface of the composite material formed with diene type polymers as taught by Kosaka (353) instead of directly polymerizing fluorinated polymers as taught by Kosaka (353) to assure fluorine moieties on the surface for chromatographic separation of organic molecules. One of ordinary skill in the art at the time of invention would chose polymerization of diene type polymers on the support material and then fluorinate as taught be Carstens (257) to obtain the fluorine moieties, instead of polymerizing the

fluorinated polymers directly, to improve the strength of the bond between the inorganic material and the fluorinated polymer as taught by Carstens (col 1 lines 4-10) and such strength is required to prevent bleeding of the organic compound and increasing the sample loading as taught by Kosaka (col 1 lines 24-35).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Krishnan S. Menon whose telephone number is 571-272-1143. The examiner can normally be reached on 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda L. Walker can be reached on 571-272-1151. The fax phone numbers for the organization where this application or proceeding is assigned are (571) 273-8300 for regular communications and (571) 273-8300 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-1700.

Krishnan S Menon 6/19/06
Examiner
Art Unit 1723